

# SERDP & ESTCP Efforts on Installation Infrastructure and Energy Resilience

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# DoD's Environmental Technology Programs



**Strategic Environmental Research  
and Development Program**

## Science and Technology

- ◆ Fundamental research to impact DoD environmental management
- ◆ Advanced technology development to address near-term needs



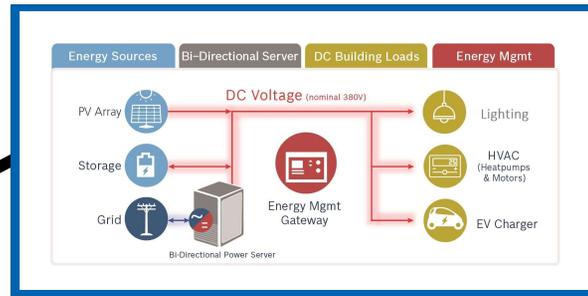
**ESTCP Environmental Security Technology  
Certification Program**

## Demonstration/Validation

- ◆ Innovative cost-effective environmental and energy technology demonstrations
- ◆ Promote technology implementation by direct insertion and partnering with end users and regulators

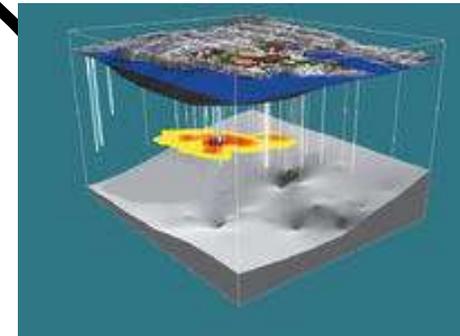
# Program Area Management Structure

**Weapons Systems & Platforms**



**Installation  
Energy & Water  
(ESTCP only)**

**Environmental  
Restoration**



**Resource Conservation  
& Resiliency**



**Munitions  
Response**

# Program Managers

Installation Energy and Water – Mr. Tim Tetreault

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571-372-6397

Resource Conservation & Resiliency – Dr. Kurt Preston

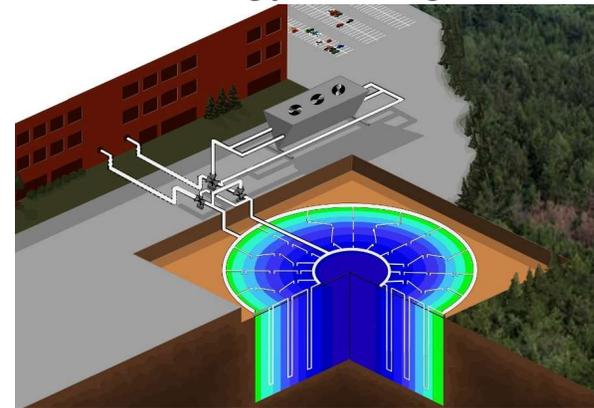
[kurt.t.preston@usace.army.mil](mailto:kurt.t.preston@usace.army.mil)

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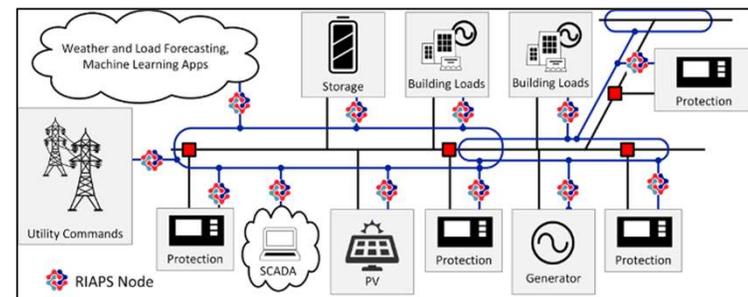
# Installation Energy and Water Program Area

- Energy Efficiency
  - ◆ HVAC
  - ◆ Building envelope
  - ◆ Lighting
  - ◆ Energy management, controls and planning
- Energy Resilience
  - ◆ Microgrids
  - ◆ Energy storage
  - ◆ On-site energy generation
- Water Conservation and Resilience
  - ◆ Water efficiency and waste reduction
  - ◆ Water resource management

Geothermal Heat Pump with Energy Storage



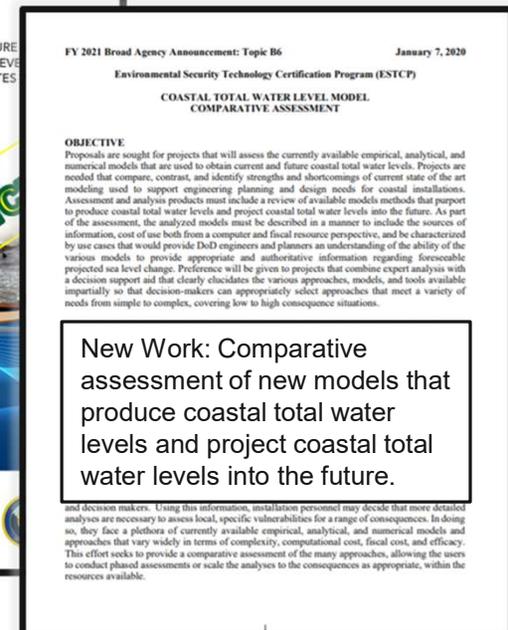
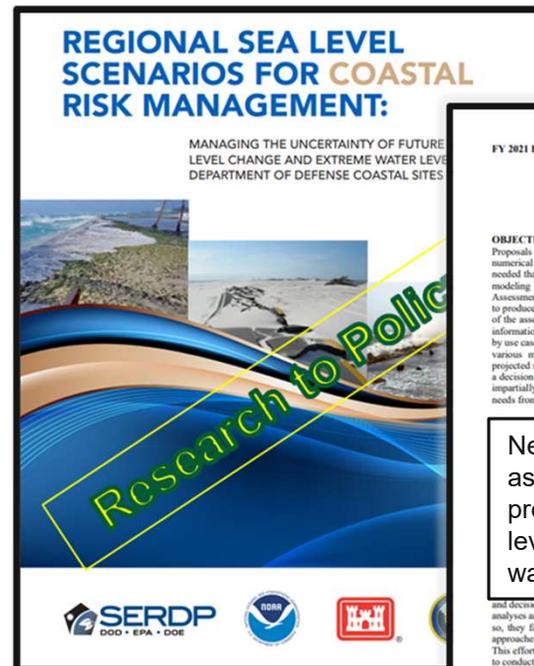
Integrated Microgrid Control Platform



# Resource Conservation and Resiliency Program Area

- Key Focus: **Installation Resilience to Climate Change**
- Vulnerability is the sum of three elements **exposure, sensitivity, and adaptive capacity.**
- RC develops systems to better understand each element and thereby **reduces DoD vulnerability to climate change.**

Recent Work: Defense Regional Sea Level Rise Database (DRSL)



# Relevant FY22 SERDP & ESTCP Topics

## Resource Conservation and Resiliency

- (S) Saltwater Intrusion Impacts on DoD Installation Infrastructure
- (E) Climate Model Comparative Assessment for DoD Infrastructure Applications

## Installation Energy and Water

- (E) Effective Planning for Electric Vehicle Infrastructure and Management
- (E) Technology Demonstrations to Accelerate Deployment of Energy Efficiency and Energy Resilience Solutions
- (E) Improved Energy Resilience
- (E) Affordable Energy Assurance at National Guard Installations

# Upcoming Topics

## **SERDP released October 28th**

Innovative Approaches to Resolving Sea-Level Related Data and Datum Gaps  
Worldwide

## **ESTCP will be released early January 2022**

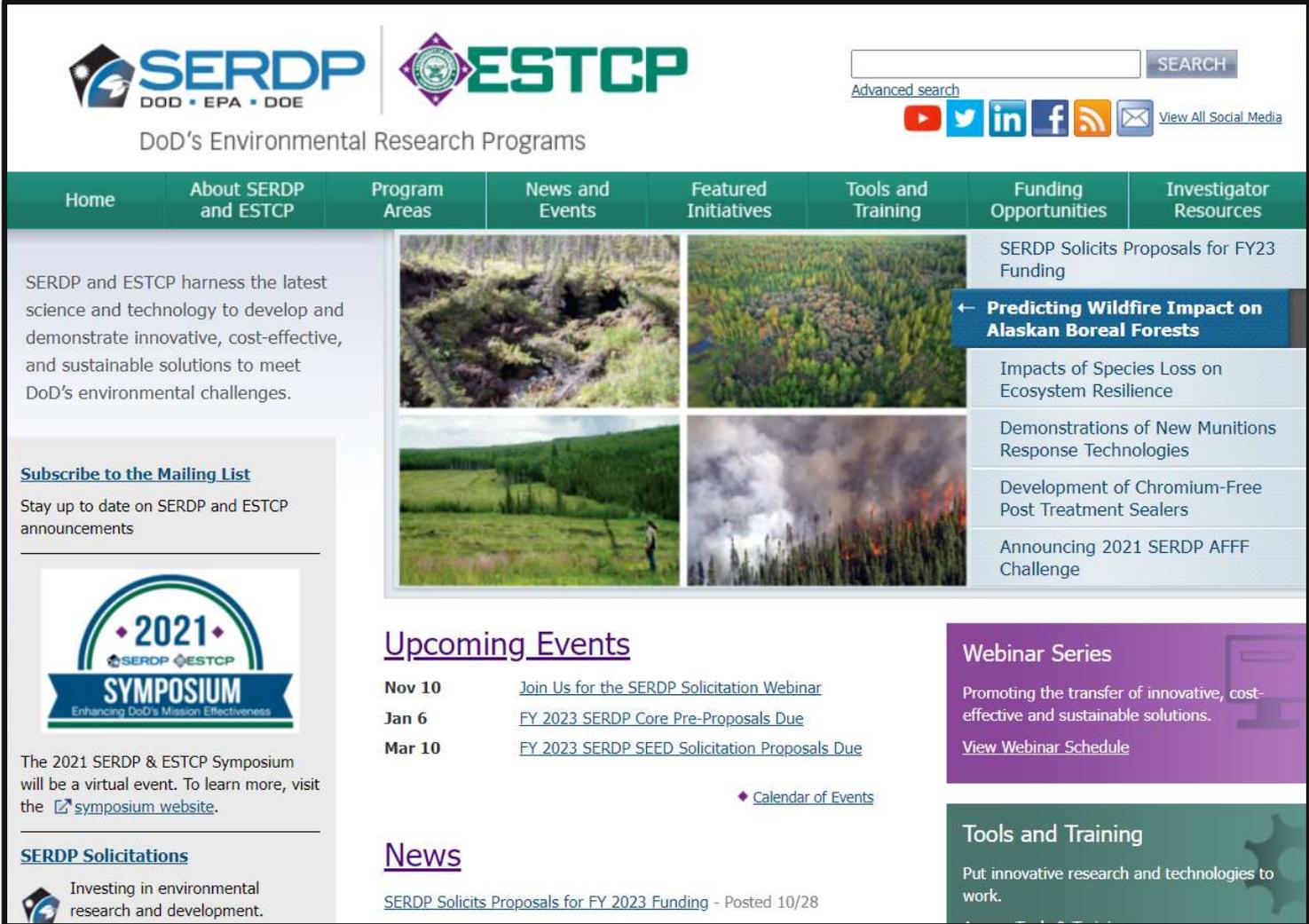
# SERDP • ESTCP SYMPOSIUM

— Enhancing DoD's Mission Effectiveness —

**November 30 – December 3, 2021**

- Dec 1 - Dec 3, 2021, via Cvent and Zoom
- Plenary session the first afternoon then three days of technical sessions and one day of short courses
- Expected Attendance: 1000
- Annual event

# https://www.serdp-estcp.org/



The screenshot shows the homepage of the SERDP and ESTCP website. At the top, there are logos for SERDP (DOD, EPA, DOE) and ESTCP. Below the logos is the text "DoD's Environmental Research Programs". A search bar and social media icons (YouTube, Twitter, LinkedIn, Facebook, RSS, Email) are visible. A navigation menu includes: Home, About SERDP and ESTCP, Program Areas, News and Events, Featured Initiatives, Tools and Training, Funding Opportunities, and Investigator Resources.

**Home**

SERDP and ESTCP harness the latest science and technology to develop and demonstrate innovative, cost-effective, and sustainable solutions to meet DoD's environmental challenges.

[Subscribe to the Mailing List](#)  
Stay up to date on SERDP and ESTCP announcements

**2021 SYMPOSIUM**  
Enhancing DoD's Mission Effectiveness

The 2021 SERDP & ESTCP Symposium will be a virtual event. To learn more, visit the [symposium website](#).

**SERDP Solicitations**  
Investing in environmental research and development.

**Featured Initiatives**

- SERDP Solicits Proposals for FY23 Funding
- Predicting Wildfire Impact on Alaskan Boreal Forests**
- Impacts of Species Loss on Ecosystem Resilience
- Demonstrations of New Munitions Response Technologies
- Development of Chromium-Free Post Treatment Sealers
- Announcing 2021 SERDP AFFF Challenge

**Upcoming Events**

- Nov 10** [Join Us for the SERDP Solicitation Webinar](#)
- Jan 6** [FY 2023 SERDP Core Pre-Proposals Due](#)
- Mar 10** [FY 2023 SERDP SEED Solicitation Proposals Due](#)

[Calendar of Events](#)

**News**

[SERDP Solicits Proposals for FY 2023 Funding](#) - Posted 10/28

**Webinar Series**  
Promoting the transfer of innovative, cost-effective and sustainable solutions.  
[View Webinar Schedule](#)

**Tools and Training**  
Put innovative research and technologies to work.